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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/812,432	03/20/2001	Curtis E. Scott	LD-10807/GEC 2 0153	9837

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Timothy E. Nauman, Esq.
Fay, Sharpe, Fagan,
Minnich & McKee, LLP
1100 Superior Avenue, 7th Floor
Cleveland, OH 44114-2518

EXAMINER
GILMAN, ALEXANDER

ART UNIT	PAPER NUMBER
2833	

DATE MAILED: 08/28/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/812,432	Applicant(s) SCOTT ET AL.	
	Examiner Alexander Gilman	Art Unit 2833	

-- The MAILING DATE of this communication appears on th cover sh et with th correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *20 March 2001* .

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-20* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-20* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1-16 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Prochaska et al in view of Scott, Jr et al .

With regard to claims 1-5, 14-16, Prochaska et al (US 4,427,785) disclose translucent ceramic body and a method of its manufacturing, the method comprising:

densifying a ceramic body to form substantially translucent ceramic body which includes alumina, the densifying process including heating the ceramic body under pressure up to 2100 kg/sq.sm (col. 7, lines 10-14) at temperature 1600-1700 degrees C.(col. 7, lines 23-25).

Prochaska et al do not disclose contacting of the substantially translucent ceramic body with a molten inorganic flux, which includes an alkali metal borate capable of dissolving the ceramics.

Scott, Jr et al (US 4,033,743) disclose contacting of the substantially translucent ceramic body with a molten inorganic flux (col. 3, lines 31-39) which includes an alkali metal borate (col. 4, lines 30-34) capable of dissolving the ceramics.

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to polish the Prochaska et al translucent ceramic body with a molten inorganic flux, as taught by Scott, Jr et al, to further increase its optical transmission.

With regard to claims 6-13, 19, Prochaska et al when modified by Scott, Jr et al disclose (Scott et al):

a molten flux bath with temperature less than 1000 degrees and oxidizing atmosphere (col. 4, lines 34-39) (claims 6-8);

coating the ceramic body and heating the ceramic body (col. 4, lines 11-19) (claim 9);

removing flux residue with an acid solution (col. 4, lines 24-26) (claim 10);

the alkali metal borate presented by $(Na_2O)_n(B_2O_3)_m$ (col. 4 lines 38-48) (claims 11 and 12);

the ceramic body is an arc tube (Abstract, lines 4-10) (claims 13 and 19).

Claims17 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Prochaska et al in view of Scott, Jr et al as applied to claim 12 above, and further in view of Rhodes et al and Curtis Scott et al.

Prochaska et al when modified by Scott, Jr et al disclose all of the limitations except for the alumina containing 0.5 weight percent of magnesia, said magnesia at a concentration at 400-1500 ppm.

Rhodes (US 4,174,973) discloses alumina containing 0.5 weight percent of magnesia (col. 2, lines 57-59), Curtis Scott disclose magnesia at a concentration at 400-1500 ppm (col.4, lines 6-10). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to provide the Prochaska - Scott, Jr et alumina with magnesia, as taught by Curtis Scott et al , to improve alumina transparency.

Claim 20 is rejected under 35 U.S.C. 103(a) as being unpatentable over Scott, Jr et al (US 4,690,727) in view of Prochaska et al .

Scott, Jr et al (US 4,690,727) disclose (Fig. 1) a discharge vessel (2) which defines a chamber and polished (col. 6, lines 10-14) ;

electrodes sealed (11, 22) into the ends of the chamber, and

a fill (inherently) sealed within the chamber.

Scott, Jr et al do not disclose densifying alumina by applying sufficient pressure and temperature.

Prochaska et al disclose densifying alumina by applying sufficient pressure and temperature as applied to claim 1 above.

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to manufacture Scott, Jr et vessel using the technology of Prochaska , as an appropriate technology for further polishing of the vessel.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alexander Gilman whose telephone number is (703) 305-0847. The examiner can normally be reached on Monday-Friday, 10:30 a.m. - 8:00 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paula A. Bradley can be reached on (703) 308-2319. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 308-7724 for regular communications and (703) 308-7722 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-4900.

Alexander Gilman

Alex Gilman

August 24, 2002